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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,010	02/03/2004	John Wesley Swafford JR.	11610.00095	4094
22908 7590 06/02/2010 BANNER & WITCOFF, LTD. TEN SOUTH WACKER DRIVE SUITE 3000 CHICAGO, IL 60606				
EXAMINER				
BUCHANAN, CHRISTOPHER R				
ART UNIT		PAPER NUMBER		
3627				
MAIL DATE		DELIVERY MODE		
06/02/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/772,010

**Applicant(s)**

SWAFFORD ET AL.

**Examiner**

CHRISTOPHER R. BUCHANAN

**Art Unit**

3627

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4,6-14,16-22,24-36 and 41-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-14,16-22,24-36 and 41-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 5/5/10
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 6-14, 16-22, 24-36, and 41-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mignault (US 6,269,285) in view of Ali (2005/0279722) and official notice.

Regarding claims 1, 13, 17, 21, 26, 31, 34, 38, 41, 45, and 48, Mignault discloses a system for inventory management on a shelf including a pusher assembly (80, 82, Fig. 3), a locator device (102, Fig. 5, permanent magnet, col. 5 line 58+) to provide the position of the pusher assembly on the shelf (see abstract), a sensor assembly (84, 86, 88, etc., Fig. 3, col. 5 line 55+) to detect the position of the pusher assembly by scanning the locator device and determining a code (col. 6 line 37-40, logic output signals) based on the scanned signals and to transmit the code representative of the pusher position for further processing, and a processing device (136, computer) configured to receive the transmitted code (see abstract, col. 6 line 40+), wherein the processing device is configured to receive the transmitted code, provide notification concerning the position of the pusher assembly (product stack height, abstract, col. 6 line 21-54), and to order additional inventory in response to the received code (col. 3

line 43+, col. 6 line 48+). Furthermore, the processing device calculates the distance between the pusher and the end of the shelf based on the transmitted code (col. 5 line 44-55, col. 6 line 65+, col. 7 line 1-5, location of pusher, product stack height, and quantity of product are determined which uses bin volume, i.e., location of pusher relative to shelf end is used to calculate stack height). Also, the sensor assembly produces an output signal (col. 5 line 55-60) which is sent to a processing device (136, computer), thus the sensor assembly includes a transmitter. Lastly, with regard to claim 21, the examiner notes that the limitations starting on line 9 of the claim which recite "...to determine a movement..." would be considered intended use and, therefore, hold no patentable weight. In the response to arguments section of this action the examiner suggests modifications to the claim which would overcome this issue and define the claim over the prior art.

The system of Mignault differs from the claimed invention in that it does not show the locator device to be an indicia strip containing a pattern of bits, the pusher assembly position data to be processed to determine if there is a deviation in the inventory data, the sensor assembly to be positioned on a pusher, and the indicia strip to be mounted on a coiled spring on the pusher.

Ali discloses a system for inventory management on a shelf including a pusher assembly (abstract, 26, Fig. 6, par. 75), an indicia strip containing a pattern of bits (40, encoder strip with vertical bars, Fig. 7, 8, par. 77-78) to provide the position of the pusher assembly on the shelf (abstract, par. 77-79), and a sensor assembly (46, 48, Fig. 8, par. 78-79) to detect the position of the pusher assembly by scanning the indicia

strip.

The examiner gives official notice that it is well known to use sensor assemblies and indicia strips in the design of pusher assemblies (see cited prior art) and to perform various post processing on collected pusher data (for inventory analysis, etc.). The particular arrangement of the system parts or details of data analysis are matters that would be obvious to one of ordinary skill in the art to alter as necessary and that alteration would merely yield predictable results. Furthermore, the examiner notes that the particular features of the system design and data analysis would be matters of design choice since they have not been shown to solve any stated problem or serve any particular purpose.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Mignault so that the locator device is an indicia strip containing a pattern of bits, as taught by Ali, to provide a simple and effective optically-based means for determining the pusher assembly location which does not require adjustment when storing different sized items (par. 74, Ali). Furthermore, it would have been obvious to modify the system of Mignault so that the pusher assembly position data is processed to determine if there is a deviation in the inventory data, the sensor assembly is positioned on a pusher, and the indicia strip is mounted on a coiled spring on the pusher, as suggested by official notice, because combining these well-known features with the teachings of the prior art would merely yield predictable results.

Regarding claim 3, wireless transmission is well-known in the art. Regarding

claim 4, the sensor assembly and computer are connected over a network (see Fig. 6). Regarding claims 6-11, a variety of sensors and indicia strips are available having various features/designs and the particular selection would be a matter of design choice. Regarding claim 12, the computer receives data in real time. Regarding the remaining dependent claims, the features of the invention recited in these claims has already been addressed in the rejection above.

### ***Response to Arguments***

3. Applicant's arguments filed April 16, 2010 have been fully considered but they are not persuasive. Applicant argues that the prior art references do not disclose all the recited features of the claimed invention. In particular, applicant argues that the references do not show a processing device that is configured to receive a transmitted code and calculate the distance between the pusher and end of the shelf or a computer configured to determine the movement of the pusher and a rate of change in product level and provide a notification that a deviation in the typical pusher movement has occurred.

The examiner disagrees and stands by the rejection. The points of applicant's arguments are addressed in the revised rejection above.

With regard to claim 21, the examiner suggests the following modifications to the claim to overcome the intended use issue discussed in the rejection above, assuming the specification supports such modifications (please point to location in spec. in amendment). In the examiner's view, such changes would make the claim allowable

over the prior art of record. The examiner also suggests that if the limitations recited in claim 21 regarding determining a rate of change in the product level and providing a notification when a deviation has occurred were added to the remaining independent claims, then these claims would also be allowable over the prior art of record.

"... the code and compare the code to a previous pusher code and further configured to determine a movement of the pusher assembly and a rate of change in a product level, and further configured to provide a notification [that] when a deviation in the typical movement of the pusher assembly and rate of change of product level has occurred."

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **CHRISTOPHER R. BUCHANAN** whose telephone

number is (571)272-8134. The examiner can normally be reached on Mon.-Fri. 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan Zeender can be reached on 571-272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. R. B./  
Examiner, Art Unit 3627

/F. Ryan Zeender/  
Supervisory Patent Examiner, Art Unit 3627